

What is claimed is:

1. In a system for pumping fluid including an engine, an engine governor, and a
5 pump, said engine being connected to and operating the pump having an outlet and
an inlet and said system being connectable to a fluid source and wherein said pump is
adapted to pump liquid and intermittently pump gasses, the improvement comprising:

a pressure transducer connected to the governor of the engine and the outlet of the
10 pump and being adapted to measure the fluid discharge pressure downstream of the
pump and deliver a signal (A) responsive to said measured discharge pressure;

said governor being connected to the engine and adapted for controlling the operating
speed of the engine and thereby the speed of the pump in response to changes in the
15 magnitude of received signal (A); and

a controlling element connected to the governor and the pressure transducer and
being adapted to receive signal (A) and override the governor and control the
operation of the engine and the pump in response to pump discharge pressure
20 fluctuation within a preselected period of time of less than 1 second.

2. A fluid pumping system, as set forth in claim 1, wherein the controlling element overrides the governor and selectively maintains the pump speed constant or decreases said pump speed in response to the measured discharge pressure decreasing in the range of about 25 to about 100 percent in less than about 1 second in response to the fluid passing through the pump changing from a liquid to one of a gas or a gaseous liquid.
4. A fluid pumping system, as set forth in claim 1, wherein the fluid pumping system is adapted for the pumping of water and intermittently pumping volumes of air.
5. A fluid pumping system, as set forth in claim 1, wherein the fluid pumping system is associated with a fire truck.
6. A fluid pumping system, as set forth in claim 1, wherein pump of the fluid pumping system is adapted to receive liquid from a plurality of different liquid sources.
7. A fluid pumping system, as set forth in claim 1, wherein the pump is a centrifugal pump.

10. A system for pumping liquid and intermittently pumping gasses, comprising:

an engine;

5 a pump connected to and operated by the engine, said pump having an inlet and an outlet;

a governor connected to the engine and being adapted for controlling the speed of the engine and thereby the speed of the pump;

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a transducer associated with fluid discharging from the pump outlet and being adapted for measuring the pressure of the fluid and delivering a signal (A) responsive to the magnitude of said measured pressure; and

15 a controlling element connected to the governor and to the transducer and being adapted for receiving signal (A), comparing signal (A) to a set point signal, and controlling the speeds of the engine and pump in response to the measured pressure decreasing below or increasing above a preselected value in a preselected period of time.

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11. A pumping system, as set forth in claim 10, wherein the controlling element is adapted to permit the speeds of the engine and the pump to controllably increase after said preselected period of time in response to an increase in measured pressure within a preselected period of time.

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12. A pumping system, as set forth in claim 10, wherein the pumping system is a portion of a fire truck and the pump inlet is adapted to be connectable to a multiplicity of different liquid sources.

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